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ABSTRACT

A study was undertaken to identify the kinds and extent of sex discrimination in access to postsecondary education. The study examined: (1) the participation of women in educational activities (secondary schools and postsecondary collegiate and noncollegiate institutions); (2) the effect of differential socialization and socioeconomic status on women's aspirations, self-concept, and motivation; (3) institutional practices that may be discriminatory, individual behavior that may limit women's options, and specific aspects of the educational experience that contribute to women's progress; and (4) the mature woman's access to education. The implications of the study are that: (1) program efforts should be undertaken for high school preparation, participation in postsecondary education, and institutional practices and policies; (2) there is a need for both periodic data collection from high school students and studies to identify the factors that affect women's career decisions; and (3) legislative efforts that go beyond Title IX are needed. (Author/MSE)

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National Center for Education Statistics
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SEX DISCRIMINATION IN EDUCATION: ACCESS TO POSTSECONDARY EDUCATION
EXECUTIVE SUMMARY

by

Helen S. Astin

Michele Harway

Patricia McNamara

Helen S. Astin is vice-president of the Higher Education Research Institute and professor of higher education, University of California at Los Angeles.

Michele Harway is a research psychologist with the Higher Education Research Institute, Los Angeles, California.

Patricia McNamara is a research analyst at the Higher Education Research Institute, Los Angeles, California.

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INTRODUCTION

This study was undertaken to identify the extent and kinds of sex discrimination in access to postsecondary education. Accessible higher education has been defined as relatively inexpensive education in nearby facilities with admissions requirements and educational programs that would accommodate most high school graduates (Willingham, 1970).

Past studies of access to education have focused primarily on unequal opportunity for blacks or persons of lower socioeconomic status (SES). The present study introduces two new dimensions: (1) discriminatory practices that hinder equal access and (2) discrimination against women. The Women's Educational Equity Act of 1974 authorizes the Secretary of the Department of Health, Education and Welfare (HEW) to make grants for the conduct of special educational programs and activities designed to make educational equity a reality for all students, men and women, and for other related educational purposes. The Act included a request for a study on sex discrimination to be completed within one year. The present work is a part of that study.

Since the Women's Educational Equity Act explicitly provides for educational equity for women in the United States, the study is designed to ascertain if educational inequity is a result of discriminatory practices; and, if so, how these practices operate and how widespread these practices are. Thus, it focuses on the effects of discrimination and inequities in postsecondary education, to the extent that they exist.

We have defined equal access to postsecondary education[1] as an equal opportunity to attend the postsecondary institutions that can prepare

a person for the occupation or life style for which he or she is best suited by virtue of abilities, interests, and talents, and that can provide those services necessary for personal and social growth. The study views educational access as a process by which an individual achieves a particular goal. As a process, access comprises all educational experiences; thus, access to postsecondary education reflects the experiences that a person has before formulating and implementing postsecondary plans.

Our main objective is to identify factors that either facilitate or inhibit educational access for women. Since our major view of education is that it represents the means by which one prepares for his/her life's work, throughout the analysis we rely on six assumptions based on empirical information.

1. Involvement in satisfying work is a vital component of self-actualization.
2. One important function of education is to provide training and to develop competencies and skills for meaningful employment.
3. Occupations are arranged in a hierarchy based on status. Often this status is reflected in monetary rewards.
4. The greater one's education, the greater the employment opportunities, the monetary rewards, and the degree of satisfaction with work tend to be.
5. Work has become important in the lives of women. Nine out of ten women enter the labor market during their life span. The average work life for women is about 25 years.

6. Women should have access to educational opportunities that provide them with the skills and credentials required for equal access to the occupational world.

Because of our basic assumptions, we emphasize throughout the extent to which women have equal access to higher educational institutions and, in particular, to selective and affluent institutions. In examining women's participation in vocational and technical institutions, we concentrate on their fields of study because the kind of training they receive in these schools determines later entry and "success" in occupational terms. The body of this summary - on the major findings of the study - is organized into four parts:

Part 1 examines the participation of women in educational activities, such as secondary schools, postsecondary collegiate institutions, and postsecondary noncollegiate institutions. Even though participation rates give only a partial picture of the situation, they do allow us to ascertain the extent to which women are taking advantage of all available educational opportunities, a major factor in their later employment opportunities.

Since high school preparation is important to entry into postsecondary education, we look in part 1 at the high school curricula and courses that girls are likely to take. Next, their reasons for going to college and for choosing particular types of colleges--also significant because they highlight differences in the interests, needs, and motives of young men and young women--are examined. For example, it is important to learn that women go to college because they feel it will further their occupational ambitions later if women are to be helped to make choices

that will prepare them for available occupations. Documenting the types of colleges women attend and the fields they choose can help us formulate recommendations for educational programs in fields where employment opportunities are great. The educational attainment of women in collegiate and vocational institutions is also described.

Knowing where women "are" does not explain, however, why they are there: why they take one course instead of another, or go to one institution instead of another, or frequently do not get as much education as men. Thus, in part 2, we describe some of the factors that account for the differential participation of women in secondary and postsecondary educational programs. Specifically, we examine how differential socialization of the sexes produces differences in aspirations, self-concepts, and motivation. We also analyze the differential impact of SES, ability, and race on the educational aspirations and achievement of women and men.

Part 3, divided into four sections, analyzes institutional practices that may have discriminatory consequences for women. The first section looks at the role of information prior to decision making, particularly at guidance and counseling in high schools as systems that provide information to students while they are formulating their postsecondary plans. Catalogs of postsecondary institutions are surveyed since they, too, provide information that influences student decisions.

The second section looks at admissions practices in an effort to identify those that may discriminate against women. It also identifies the behaviors of women which may limit their options, independent of institutional practices.

The third section, on finances and their impact on access, compares

the resources of women with those of men. It looks at the different types of financial aid and their impact on access and progress.

The fourth section focuses on specific aspects of the educational experience which contribute to women's educational progress and attainment, including student-faculty relationships, and the availability of facilities that could help women participate more successfully in higher education by reducing pressures and conflicts from other responsibilities.

Part 4 deals with the adult woman's access to education. Since the mature woman is at a different stage in life than the typical college woman, and presumably has more experience and greater responsibilities, her needs and interests are different. This brief separate part permits a clearer definition of the problems of adult women and of postsecondary education's responsibility to remove the barriers that confront them.

Finally, this report presents the implications and recommendations of the study, grouped into four main areas: program efforts, research efforts, data collection efforts, and legislative efforts.

DATA SOURCES

For our critical analysis, we depended heavily on three data sources: (1) research and theoretical literature; (2) statistical reports on high school and college youth; and (3) exploratory studies designed to address questions on which information is lacking in the two other data sources.

Research and Theoretical Literature

Except for several classic works, most of the literature reviewed for this study was published during the last decade. To identify material, we used the following methods:

1. A cataloguing and review of many in-house bibliographies, books, and reports. The bibliographies included Astin, Parelman and Fisher (1975); Astin, Suniewick, and Dweck (1974); Bickner (1974); Harmon (1972); Westervelt and Fixter (1971); Phelps, Farmer, and Backer (1975); Padilla and Aranda (1974).
2. Computer searches of appropriate literature, including the American Psychological Association (APA) service, the Educational Resources Information Center (ERIC), Current Index to Journals in Education (CIJE), and Research in Education (RIE).

Searches were based on key word concepts: for example, higher education, sex discrimination, women's education, college-bound students, Negro students, career planning, career choice, minority women, postsecondary education, educational opportunity, role perceptions, role models, school responsibility, and so forth. Annotations of the literature, which appear in the appendix of the main report are catalogued alphabetically.

Statistical Reports

In reexamining data on high school and college youth, we had access to reports from Project TALENT, the ACE-UCLA Cooperative Institutional Research Program (CIRP), the National Scholarship Service and Fund for Negro Students (NSSFNS), and the National Longitudinal Survey (NLS).

Project TALENT. In 1960, Project TALENT, conducted by the American

Institutes for Research, surveyed ninth- through twelfth-grade students at a 5 percent stratified random sample of the nation's high schools. Information on ability, socioeconomic status, grades, curriculum, educational and career interests, and expectations was collected. These students were followed up through mailed questionnaires 1, 5, and 11 years after high school graduation, to ascertain their educational, occupational, and personal experiences. To ensure representativeness of the follow-up samples, those who did not respond to the mailed questionnaire were followed up by telephone.

Cooperative Institutional Research Program. Conducted jointly by the American Council on Education and the University of California at Los Angeles, CIRP began operation in 1966, collecting data from all entering freshmen at 307 representative institutions. Currently, the sample numbers over 600 institutions. The entire freshman classes of participating institutions are surveyed upon matriculation; at subsequent intervals, subsamples of these same students are followed up.

The main purpose of the annual freshman survey is to collect data on students by means of the Student Information Form (SIF), a four-page questionnaire designed to elicit standard biographical and demographical information as well as information on high school activities and achievements, educational and occupational plans, attitudes on social and campus issues, and life goals. By repeating many of the same items from year to year, CIRP can not only compare successive cohorts of freshmen to monitor national trends in the characteristics of college students but can also compare the person's initial responses with his/her later responses on follow-up questionnaires to see whether he/she has changed

(e.g., in political views or career plans) over time. New items are added each year to explore questions of current interest to higher education. Thus, the SIF has both continuity and flexibility.

National Scholarship Service and Fund for Negro Students. Based on data collected as part of a program to provide counseling and guidance services to black youth, the NSSFNS file contains information on a national sample of black high school seniors representing the classes of 1971-72-73. The sample for each year numbered about 50,000 students at about 7,000 high schools. Types of information included are demographic characteristics, educational and occupational aspirations, attitudes, values, and high school experiences.

National Longitudinal Study. In spring 1972, the NLS collected data from about 18,000 seniors at 1,000 high schools. Follow-up data were collected a year after graduation, and subsequent surveys are planned for a period of from six to eight years. Types of information collected are demographic characteristics, postsecondary plans, educational and occupational aspirations, and high school experiences and achievements.

Exploratory Studies

In connection with this project, we carried out a number of exploratory studies on (1) proprietary institutions participating in the CIRP, (2) the content of institutional catalogs, (3) guidance materials in high school libraries, (4) differential rates of acceptances to applications for college, and (5) admissions criteria in postsecondary institutions.

The following organizations provided information and assistance: National Education Association, American Personnel and Guidance Association, Women's Rights Commission (American Federation of Teachers),

Resource Center on Sex-Roles in Education, Black Women's Institute, Business and Professional Women's Foundation, American Council on Education, and Project on The Status and Education of Women (Association of American Colleges).

Data and Time Constraints

The research literature on access in education is limited, overwhelmingly so on issues of unequal access because of sex, and is almost nonexistent for minorities and SES when sex is the controlling variable. Most studies thus far have focused on issues of unequal access resulting from differences in socioeconomic status and race. The landmark volume by Coleman and his associates (1966) launched a series of studies of equal educational opportunity in American society. Classic studies on inequality were also done by Mosteller and Moynihan (1972), and Jencks et al. (1972). A major longitudinal study of educational and occupational development was done by Sewell and his associates. Begun in 1962, this investigation of high school youth during the ten years following their graduation focuses on social and psychological factors in status attainment (Sewell and Hauser, 1975).

Though, all these studies concern differential access and attainment, they deal only minimally with sex discrimination as a variable in access. Thus, the existing literature is virtually devoid of studies on this subject.

Recently, some efforts have been made to examine sex differences in admissions, financial aid, and programs and services in educational institutions (Attwood, 1972; Rubin, 1974; McBee & Suddick, 1974). Most recent theoretical and research studies of sex discrimination concentrate

on occupational entry and status, perhaps because earlier legislation--such as Title VII of the Civil Rights Act (1964) and Equal Pay Act (1963) with their amendments, encourage such an emphasis. The recent Title IX guidelines may stimulate more specific research on sex discrimination in access and in programs.

Because the present study was undertaken to comply with the Women's Educational Equity Act's provision that a study on sex discrimination be completed within a year of enactment, the research team operated under enormous time constraints. The work had to be completed within nine months of the contract date (April 30, 1975 to January 31, 1976).

FINDINGS

RATES OF PARTICIPATION IN EDUCATIONAL ACTIVITIES

From examining the participation rates of men and women in educational activities, we can ascertain the extent to which women are taking advantage of all available educational opportunities. The kind and amount of education women receive have implications for their future employment opportunities.

High School Preparation

According to National Longitudinal Study (NLS) (Fetters, 1975) data, sexes were sharply segregated among vocational and technical programs in high school: 21 percent of the women compared with 3 percent of the men were in business or office occupations and 11 percent of the men compared to 1 percent of the women were in trade or industrial occupations. Although a slightly greater proportion of men than of women were in both general and academic programs, racial/ethnic differences existed: While 45 percent of whites were in academic programs, only 33 percent of blacks and 29 percent of Hispanic students were similarly enrolled. Approximately equal percentages of white and blacks were enrolled in general high school programs, in contrast to a larger percentage of Hispanic students.

Women made considerably better high school grades than men, yet fewer women than men planned to attend graduate or professional school. Although, black students generally made lower high school grades than whites, black women made higher grades but were less likely than black men to have high educational aspirations.

The subject areas studied in high school affects subsequent access

to postsecondary education. Both black and white high school girls tended to underprepare in mathematics and science even though those who did enroll in these subjects received slightly better grades than boys.

Responses to the NLS questionnaire indicated that high school seniors who did not plan to continue their education on a fulltime basis the following year gave various reasons for this decision. Overall, more whites than minority students, and more women than men (except for those joining the military), indicated that their plans simply did not require any more schooling. Financial considerations are seen as barriers for more minority students than whites, and more men than women among those not planning to continue their education. Poor high school grades or low college admissions test scores were cited as a reason by more men than women and more minority students than whites. Men and minority students were also more likely than women and whites to discontinue their education because they did not get the necessary information in time: They did not know about admissions requirements, or about what an education costs, or about whether there was a school in the area they could attend.

Examining the relative importance of factors assigned to a student's selection of a particular college, one finds that economic considerations were very important for minority students, and somewhat important for women.

College Enrollments

Although the absolute number of women enrolling in institutions of higher education just about doubled between 1964 and 1973, the

proportion of women still lags behind that of men. Approximately one-third of white youth in the 18-21 year age group were enrolled in college in 1973; only one-fifth of black youth in this age group were enrolled. It has been estimated that 23 percent of Mexican-Americans (Ferrin, Jonsen, and Trimble, 1972) and 17 percent of American Indian youth enter college (Parsons, 1975).

Beginning with two-year colleges, as the educational level increases, the proportion of women enrolled decreases: Women comprised 45 percent of two-year college enrollments, 43 percent of four-year college enrollments, and 42 percent of graduate enrollments; of the last group, most were in terminal master's programs. A critical question relating to equal access is the types of institutions attended by various groups of students. In an analysis conducted for this report using data collected by the Higher Education General Institutional Surveys (HEGIS) during fiscal 1972 and 1973, we found that women attended smaller, less selective, and less affluent institutions. Women are also under represented in technological institutions. Examining enrollment figures for 36 technical institutions, we found women to be 10 or less percent in 22 of these institutions.

Preparation in College

A student's choice of college major has a profound effect on his/her subsequent access to various occupations. The picture has changed recently in that women are increasingly choosing "nontraditional" fields of study. Examining the American Freshman: National Norms for Fall 1975 (Astin, King, and Richardson, 1975), we find that more young women planned, on college entry, to pursue traditionally "male" careers than ever before.

Among entering college freshmen, 17 percent of the women were planning a career in business, engineering, law, or medicine, a 2 percent increase over 1974 and an 11 percent increase over 1966. In spite of these changes, however, almost one-third of the women are still planning to major and pursue careers in education and non-M.D. health fields.

Among black high school seniors[3] fewer men and more women expected to major in business than their non-black counterparts. Conversely, proportionately more black men and fewer black women planned to major in education than did men and women in general.

Educational Attainment

In 1973-74, women earned 45 percent of the bachelor's degrees, but the only fields in which they earned more than half of the degrees were the traditionally "female" fields of home economics, library science, the non-M.D. health fields, foreign languages, and education. In 1973-74, women earned 9 percent of the first professional degrees,[4] 44 percent of the master's degrees, and 19 percent of the doctorates awarded. Again, women are concentrated primarily in traditional fields.

Vocational and Technical Education

In 1972, women accounted for over half of the 11½ million enrollments in vocational education programs. In 1970, women constituted 63 percent of all secondary, 39 percent of all postsecondary, and 46 percent of all adult vocational enrollments. But here too, women were heavily concentrated in traditionally female fields: When the enrollments for homemaking, home economics, and office skills were combined, they accounted for 84 percent of all women taking vocational courses. Furthermore, in office occupations and health fields, women predominated in relatively low-paying

specialties. Women accounted for 49 percent of the enrollments in business data processing systems courses and 29 percent of those in supervisory-administrative management courses. However, in the field of data processing, women constituted over 85 percent of the enrollments in key punch operators, but only 27 percent of the enrollments in computer programming technology (Steiger and Cooper, 1975).

Moreover, 72 percent of the men enrolled in vocational education were in agricultural, technical, trade, and industrial fields, a sharp contrast to the figure of 6 percent of all women. Nationwide, enrollment in the relatively high-status technical programs was 90.2 percent male and 9.8 percent female.

Proprietary Education

Students enrolled in proprietary institutions tend to be older, particularly the men of whom about 20 percent are veterans, than community college freshmen. Over one in ten of the proprietary students has had some prior postsecondary educational experience. More than three times as many black men and twice as many black women enroll in proprietary institutions as enroll in community colleges.

Although women in the proprietary student body were more likely to have completed high school (99 percent of the women and 96 percent of the men) and to have better high school grades than the men, they were less likely to have had a college-preparatory high school education and had lower degree aspirations (21 percent of the men and 13 percent of the women hope to attain a bachelor's degree).

The most important reasons for enrolling in a proprietary school that are cited by proprietary students are: (1) special educational

programs, and (2) offer of financial assistance. Almost three times as many women as men are majoring in business, and men are more likely than women to major in technical fields and engineering. Working with people and being helpful to others were more frequently mentioned by women than by men as very important reasons for their career choice. Women were also more likely than men to choose their future career because it represents a "respected occupation" or because job openings are available.

EFFECTS OF BACKGROUND AND PERSONAL VARIABLES ON ACCESS

Before one can ascertain the impact of discriminatory practices, either institutional or individual, that result in differential educational access and attainment, one must examine the various processes and early experiences that shape people. Family background variables, for example, play a key role in educational decisions, progress, and ultimate attainment. A number of personal characteristics affect the access of students to postsecondary education, independent of institutional practices.

Impact of Socialization

Sex differences in verbal, visual-spatial, and mathematical abilities are fairly well-established. Boys and girls tend to be fairly equal in these abilities until early adolescence; then, in the early teens, girls tend to surpass boys in verbal ability and boys to surpass girls in visual-spatial and mathematical ability.

Children are often reared to view the parameters of the man's role as substantially different from those of the woman's role. Differential socialization affects not only the choices individuals make but also the alternatives they see as available. At the secondary level--the point at which decisions about postsecondary plans are made--students have already

experienced an intensive, though largely unconscious, campaign that has taught them which behaviors, values, and goals are appropriate for their sex.

Effects of Socioeconomic Status, Ability, and Race

Although aptitude and past achievement are important in postsecondary access and achievement, socioeconomic status (SES) appears to exert a stronger influence on girls than on boys. Girls of low SES are less likely to pursue a collegiate postsecondary education than boys with similar aptitudes from the same low SES levels.

In the early 1960's, half of the boys and one-fourth of the girls in the highest ability but lowest SES quartiles eventually attended college. More recent data, which were not available at the time this report was prepared, might indicate some changes.

For a man, meeting admissions requirements and having the ability to pay matriculation fees were important considerations in college attendance. A woman's probability of attending college is strongly affected by such variables as the education and values of her parents and the availability of a college in the community.

Since taking a college preparatory curriculum in high school is important in pursuing higher education, we examined the differences in the high school preparation of students whose fathers were college graduates versus those whose fathers had only a high school education: 30 percent of the students from the latter group were in high school academic or college preparatory curricula, compared with 67 percent of the former group. Moreover, SES affects the sexes differently with respect to postsecondary education completion rates. White men of low

SES and high aptitude were more likely than their female counterparts to complete their training.

Self-Image and Expectations of Women

A woman's participation in postsecondary education - collegiate and noncollegiate - is determined not only by existing opportunities but also by her aspirations, her expectations, and the views she holds about the role of education in her development and in her preparation for adulthood. Some studies have reported that women set lower aspirations and goals for themselves than men do; moreover, the views and expectations of others influence young women's orientation toward academic endeavors.

Examining the life goals of high school students, we find work and success on the job and in the community were more important to young men, whereas a happy family life and the correction of economic and social inequities were more important to young women. The life goals of college students, suggest that men are motivated more by extrinsic values, whereas women's objectives are motivated by intrinsic values. Such differences in values also affect career choice and the educational preparation that enables people to pursue their chosen career.

Comparing the self-ratings of entering college men on various personal traits to those of women, we find that men rate themselves higher than women on academic achievement-oriented tasks. Women rate themselves higher on social competence.

Even though a strong sex difference in self-esteem is by no means clear, there does appear to be "a 'male cluster' among college students made up of a greater self-confidence when undertaking new tasks, and a greater sense of potency, specifically including the feeling that one is

in a position to determine the outcomes of sequences of events that one participates in" (Maccoby and Jacklin, 1974, p. 158). These findings are somewhat limited, however, in that the variables of race/ethnicity and SES have not been controlled.

Achievement Motivation

Central to the question of educational access and attainment is the extent to which young people have high aspirations and are motivated to achieve educationally and occupationally in our society.

The level and direction of achievement motivation in women appear to be affected by sex-role definitions, orientations, and expectations. Various experimental attempts have been made to raise women's need for achievement, generally without success. Stein and Bailey (1973) report, however, that stressing the important feminine area of social acceptability and skill (rather than the masculine areas of intelligence and leadership) sometimes led to increased achievement motivation among women.

Personal attributes generally defined as feminine, such as dependence and lack of assertiveness, may conflict with achievement motivation as usually manifested in intellectual and occupational contexts. Horner (1972), maintains that fear of success, viewed as a motive within an expectancy-value theory of motivation, also prevents women from achieving.

Many girls and women seem to experience a conflict between striving for achievement and the feminine role; they perceive achievement as unfeminine. Stein and Bailey (1973) found that child-rearing practices conducive to feminine sex-typing were frequently antagonistic to those leading to achievement-oriented behavior.

The aspects of child-rearing which appear to facilitate achievement-oriented behavior in women are: (1) a moderate, but not high, level of warmth or nurturance; (2) permissiveness; (3) independence, especially emotional independence; (4) parental encouragement of achievement effort including positive reinforcement, and criticism for lack of effort; and (5) the presence of an achieving maternal model.

Nevertheless, all these findings reported are for white populations. Similar research within minority populations or different SES groups are virtually nonexistent.

INSTITUTIONAL PRACTICES

While some knowledge of the differential participation and attainment rates of men and women and of the personal and background factors that inhibit women in pursuing postsecondary education is essential to an understanding of the problem of discrimination in access, perhaps even more pertinent is some knowledge of the institutional practices that may act as barriers. These are, after all, more vulnerable to change. Such institutional practices include the counseling and information that students receive in high school, the recruitment and admissions practices of postsecondary institutions, the availability of financial aid, special programs and practices.

Information Prior to Decision Making

As they approach graduation, high school students are coming to decisions about whether to attend a postsecondary institution and, if so, what kind. In addition to the influence of parents and peers, counselors and the guidance materials they may use affect those decisions.

According to Project TALENT data (1960), boys more frequently discussed college plans, high school work, and personal problems with their counselors than girls did. Girls and boys discussed post-high-school jobs with about the same frequency. Asked to indicate the major influences on their decisions, however, most students - whatever their sex, race, or ethnicity - said that they themselves were responsible for their choice of a high school curriculum and for their postsecondary plans. High school counselors exerted a major influence on relatively few students, though on a larger proportion of minority students than of whites: 21 percent of the blacks, 16 percent of the Hispanics, and 9 percent of the whites, both male and female (NLS, Fetters, 1975).

High school girls, regardless of their race or SES, more often discussed their futures with significant others than boys did. Rating their counseling experiences, black males were most satisfied followed by white males; fewer girls, either black or white rated their counseling experience as excellent or good.

In general, counselors appear to be less important in providing information and in influencing young persons plans than expected. Nevertheless, women appear to be less satisfied with their counseling experiences than men are.

Tests and guidance materials appear to be a potential source of bias. It has been convincingly argued that the empirical evidence on which interest inventories are constructed is based on the world as it is: a man's occupational world. Limiting the occupational choices available for women in these tests implies that <u>what is</u> equals <u>what should be</u> (Tittle et al. 1974) and thus limits the options women perceive

as available to them.

Career guidance material - including pamphlets or books descriptive of occupations, college admissions manuals, college catalogs, and counselors' handbooks - are often male-referenced and convey subtle but pervasive impressions of sex-appropriate and race-appropriate career aspirations (Birk, 1974; Tittle et al., 1974; Birk, Cooper, and Tanney, 1973 and 1975). An examination of materials in six Los Angeles high schools substantiated this finding.

Recruitment and Admissions

Do institutional admissions standards and practices affect women adversely? The question is hard to answer, since the research literature is for the most part lacking in studies of sex discrimination in admissions. Nevertheless, Walster, Cleary, and Clifford (1970), using a sample of 240 institutions, found that, overall, men were more often accepted by the college than were women, and this was particularly true among students of low ability. The authors concluded that women are more likely to be discriminated against in college admissions when they come from lower ability levels, and since more students, both male and female, are found at those levels, such discrimination penalizes women more than it does men.

In an exploratory study[5] on applications and acceptances, we substantiated the finding that highly able women seemed to fare well in the college admissions process. Another study[6] which examined interrelationships of factors in college choice found that women, regardless of race, who were willing and interested in making multiple college applications and who wished to enroll in a college at a considerable distance from

home were career-oriented and had high degree aspirations. They also tended to have highly educated parents. Thus, we may conclude that the highly motivated woman is more independent and open to alternative choices, thus enlarging her opportunities and increasing her chances of being accepted. A third exploration of specific admissions requirements at eight institutions indicated that an applicant's high school grades and courses were crucial in admissions decisions. Since girls usually make better high school grades than boys do, girls have the advantage on this criterion. On the basis of the courses taken in high school, however, girls are usually at a disadvantage, particularly with respect to admission to technological institutions, which require strong preparation in math and science.

Overall, women fared well in being accepted for admission to graduate school, except in the top-ranking schools, where more male than female applicants were accepted (Solmon, 1975). Letters of recommendation - a criterion often used in graduate admissions - were found frequently to reflect stereotypic biases against women which could affect their acceptance to and progress in graduate study (Lunneborg, and Lillie, 1973).

Financial Aid

The availability of financial aid may determine a high school student's decision as to whether or not to pursue postsecondary education, and, can have a major influence on his/her choice of an institution. Furthermore, once enrolled, the student's persistence can be affected by the availability, type, and amount of financial aid. The kinds of financial aid available and their distribution are, therefore, crucial variables in any study of access to postsecondary education.

More men than women plan to attain a postsecondary education; more men attain degrees, particularly the more advanced degrees. This situation results partly from the belief that men will have to support a family while women will be taken care of by their husbands, a belief that often causes women to underestimate their need for education and causes families - particularly low-income families - to place greater value on their sons' than their daughters' being educated.

Students rely heavily on parental aid as a source of funds for financing their education. Moreover, women rely more on parental aid than men do; according to one study (Astin, 1975b), 65 percent of white women compared with 47 percent of white men indicated that parental aid would be a major source of support. Because of this sex difference, it seems likely that women from low-income families will have difficulty financing their education.

Earnings from employment and savings are another important financial source. According to Bengelsdorf (1974), men were generally able to earn more than women; moreover, women had fewer opportunities for employment during both the high school years and the summer and received lower wages than men did when they worked.

A student's chances of persisting in college or dropping out are significantly influenced by the type and extent of employment she/he has. The ideal job appears to be a part-time, on campus job (Astin, 1975). Furthermore, participation in federal work-study programs enhanced persistence, especially among women and blacks (Astin, 1975b). Friedman, Sanders, and Thompson (1975) in a study of federal College Work-Study programs found evidence of sex discrimination in work placements: Men

were twice as likely as women to hold high-level jobs, regardless of class level, academic major, or grade average. Even when men and women held similar jobs, men were generally paid more than women.

The Basic Educational Opportunity Grants program currently requires an "expected family contribution" before the student can receive a grant, a stipulation that may penalize those women whose parents do not see the value of an education for their daughters. Moreover, according to Westervelt (1975, p. 14): "Sex-restricted awards available at men's colleges have exceeded both in numbers and amounts those available to women's colleges, largely because of the greater number, size, and wealth of the more prestigious men's colleges". Finally, fellowship funds are awarded to men more frequently than to women, partly because relatively few women participate in fellowship competition (Attwood, 1972).

Loans, another important source of finance for an education, are often difficult for women to obtain because of their presumed employment and income patterns (American Council in Education, 1975). One study found that men were more likely than women to borrow in order to finance their undergraduate and graduate study; twice as many men as women had loans of $4,000 or more (El-Khawas and Bisconti, 1974). Athletic scholarships and G.I. and R.O.T.C. benefits are obviously a greater source of financial support to men than to women.

As long as women are expected to carry most of the burden of family care, institutional regulations that prohibit financial aid to part-time students will be discriminatory toward women (Bengelsdorf, 1974). Similarly, the lack of aid to support low-cost child care will hinder many women from enrolling or persisting in postsecondary education.

Among undergraduates, men received scholarship and loan support less frequently but in much greater amounts than did women. Indeed, men received more total financial support than did women (Astin et al., 1974). The available data do not make it clear whether this inequity exists because men are judged to be more needy than women or because they are simply more assertive in applying for aid and in seeking employment.

Women entering college in fall 1974 were more likely to express concern about being able to finance their education than men were. They were also somewhat more likely to be financially dependent on their parents or, in some cases, husbands.

Concern about financing their education was less pronounced among proprietary students than among collegiate students. Nearly one-third of proprietary students were financially independent. They relied more heavily on grants and loans and less on scholarships, employment and personal savings than did community college freshman. Some of these differences may be accounted for by the larger proportions of married students and veterans among proprietary students, and thus a greater reliance on support from spouse and G.I. benefits.

Though some information is available on the numbers of men and women who receive certain kinds of aid for graduate study, it is virtually impossible to find useful data on the dollar amounts received from various sources by each sex. A longitudinal study provided a somewhat sketchy picture: During the first year of graduate study, women relied more on family resources than did men; men, on the other hand, received more support from scholarships, fellowships, and traineeships (El-Khawas

and Bisconti, 1974). Creager (1971) found that 23 percent of male graduate students, compared with 20 percent of female graduate students financed their graduate education by assistantships. Moreover, having an assistantship is related to persisting in graduate study. Whereas a fellowship provides aid with "no strings attached" (i.e., the recipient is not required to work in exchange for support), an assistantship means working closely with a mentor, which may have added educational and professional benefits. Thus, women are to some degree disadvantaged. Moreover, men were more likely to be awarded a research assistantship, and women a teaching assistantship, an additional barrier of sorts, since working on a research project implies a closer relation with the mentor and is in itself a valuable experience, useful in later career development.

Access to graduate school involves not only enrolling in a graduate program, but more important, enrolling in the graduate program of one's choice. When students were asked why they did not enroll in the school of their first choice, 61 percent of men and 31 percent of women stated that it was because they were not accepted. But, 25 percent of the women and only 11 percent of men said, it was because they received no offers of financial assistance. Whereas family responsibilities and financial hardships were the most likely causes for women to interrupt graduate study, men were more likely to discontinue their studies because of loss of interest and academic difficulties.

Practices and Special Programs

All along we have defined access as related to issues beyond simple entry into the postsecondary system. The concept of educational access

incorporates progress and attainment as well. The importance of role models in influencing the educational achievement of women cannot be ignored in this context.

Several studies have addressed this theme. For instance, it has been found that women students thought male faculty members did not take them seriously. Moreover, women graduate students who expected to withdraw from school often indicated that this perceived lack of acceptance by male professors created pressures which precipitated their withdrawal (Holmstrom and Holmstrom, 1974).

According to Davis (1969), faculty believed women hold lesser or minority positions in their disciplines, do not produce publications contributing to academic knowledge, and are less likely to be hired as professors in state universities. These beliefs are evidence for Epstein's (1970) contention that a male sponsor often does not develop a mentor-protegee relation with his female students because he thinks they are not deeply committed or capable of becoming his appropriate successor.

Thus, lack of women role models on the faculty, along with lack of encouragement and support from male faculty members, can negatively affect a woman student's self-image and, in turn, on her inclination to persist until her training is completed.

Another problem that can impede a woman's progress is the absence of special facilities and services for women, such as gynecological care, child care, and counseling free from sex bias. A survey of institutional catalogs conducted at HERI found that gynecological services were mentioned in only 6 percent of the catalogs of four-year colleges and in none of the informational material of two-year institutions and

proprietary schools.

Moreover, 72 percent of college and university health services do not prescribe birth control for women (National Student Association figures reported in Project on the Status and Education of Women June, 1972 newsletter).

ADULT WOMEN AND ACCESS TO POSTSECONDARY EDUCATION

The woman who wishes to return to school after some time away from the formal education system is hampered by both internal difficulties and external barriers. The personal problems and attitudes that create obstacles include not knowing how to find out what her options are, lack of confidence in her ability, guilt over taking time and money from her family, and time pressures in trying to fulfill both academic and household responsibilities. Institutional barriers include admissions requirements designed for students coming directly from high school, policies against allowing previous college credits after a certain period, rules that discourage part-time study, financial aid programs designed for traditional students, rigid course requirements and prerequisites, and the scheduling of classes at inconvenient times and places.

Continuing education programs for women (CEW), adopted by many institutions, have helped mature women make the transition back to school and to fulfill their occupational and educational aspirations. The success of CEW dramatizes the need for change and reform in the traditional institutional structure. Colleges and university must adopt a more flexible attitude that will allow them to accommodate individual differences. They must relax nonessential academic regulations and requirements that

are not meaningful for nontraditional students.

CEW programs are not perfect. A recent study (Astin, in press) showed that participants in continuing education programs faced a number of problems, including (in descending order of importance): Time at which classes were offered, location of and transportation to classes, costs, lack of time, and obligations to one's job or family. Costs were a major obstacle to previously married or single and nonwhite women more often than they were for white and married women. Married women and those ages 31-40 were the most likely to have conflicts as a result of family obligations, whereas single women and those ages 41-50 were most likely to report major difficulties due to job responsibilities.

IMPLICATIONS AND RECOMMENDATIONS

The findings presented in the body of this report have a number of implications that provide a framework for recommendations about programmatic efforts to be undertaken by postsecondary educational institutions. In addition, they suggest the need for research that can provide more and better information and for data collection methods. Finally, they have ramifications for current legislative efforts.

PROGRAM EFFORTS

Insofar as action to be undertaken by educational institutions is concerned, our recommendations cover three areas: high school preparation, participation in postsecondary education, and institutional policies and practices.

High School Preparation

It is evident that, if women are to have the same occupational opportunities as men do, steps must be taken by the secondary schools to ensure that they have the necessary preparation. First, girls who in high school take vocational curricula should be encouraged to diversify their fields of study from the typically "female" courses into the technical courses that are now the domain of boys. Second, high school girls enrolled in academic and college preparatory curricula should be counseled to enroll in and complete more courses in mathematics and science. As the situation stands now, women often underprepare themselves in these areas because they fail to realize that such preparation considerably enlarges their options and thus may be crucial to their future lives.

Many young women continue to believe that postsecondary education bears little relation to their future lives - one reason why fewer women than men pursue postsecondary education. In addition, high school girls are more likely than high school boys to perceive the costs of a post-secondary education as a barrier. A lack of information about financial aid resources and a tendency to underprepare in science and mathematics both impede young women in formulating and implementing their postsecondary plans. Thus, in dealing with high school girls, counselors have a dual responsibility: To help them develop more realistic outlooks about their future lives, and to provide practice and detailed information about the financial costs of an education and about sources of financial aid.

Programmatic guidance efforts can assist all high school girls to (a) change their perceptions about appropriate occupational roles for women and (b) develop a better understanding of the multiple roles they are likely to assume in the future. Specific efforts in assisting women to prepare for the future might include specially designed courses on career development, to be taken by both girls and boys. Such courses would have two components: Self-assessment of interests and competencies, and occupational information, including what types of preparation are needed for different occupations, and what their requirements and rewards are. Such courses would emphasize - through discussions and analyses - how sex-role socialization shapes occupational choices and would seek to free students from these stereotypes.

Another step that should be taken at the curricular level is to introduce high school girls early to technical and scientific material so that their interest will be aroused and their sense of competency be

developed.

We would recommend that women's studies be introduced in high school so that students of both sexes can gain a greater understanding of the effects of socialization. Women's studies can elucidate the images of the woman as depicted in literature, history, and art as well as exposing the student to important women writers, artists, and scientists who may serve as role models.

In addition to curricular changes, an effort should be made to develop new guidance materials, films, pamphlets and so forth.

High school teachers and counselors are themselves products of socialization. If change is to be effected, special efforts should be made to provide them periodically with systematic training about sex-role development and about the role that socialization plays in shaping the self-perceptions, aspirations, and educational and occupational choices of women.

Since parents obviously have a profound influence on their children, the high schools should plan programs to assist parents in working with their sons and daughters on issues concerning education and career decisions. Not only must parents have complete information about postsecondary opportunities and costs, but also they must have experiences that provide for sex-role awareness.

Participation in Postsecondary Education

Examining the data on women's participation in postsecondary education, we find that a few facts stand out. First, fewer women than men enter college, and this disparity in proportions increases at each higher level of advanced study. Second, very few women attend technical

institutions. Third, women in collegiate institutions tend to major in traditionally female fields, such as education and health-allied fields, even though dramatic changes have occurred in the past few years. Fourth, women in vocational education are also likely to train for traditionally female occupations.

The rather limited participation of women, and their concentration in traditionally female fields, results from socialization as to appropriate roles and occupations for women. Sex-role stereotypes continue to operate as women make decisions about their future lives. To overcome these stereotypes--which have already taken their toll in high school--colleges, and in particular technological institutions, should attempt to develop active programs for women. Such programs would include special efforts to recruit high school girls to provide them with tutorials and remediation in mathematics and science once they have been admitted.

The cost of postsecondary education is perceived by many young women as a particular problem as they make decisions about their future lives; once in a postsecondary institution, they continue to have special concerns about financing. The type and amount of financial aid available has been found to affect decisions about postsecondary education as well as persistence while in college or graduate study. Since young women in general are more likely than men to depend on their parents for supports, those whose parents do not value education for their daughters as much as for their sons may need financial aid as much or even more as the male students.

Work-study programs have been found to be an effective form of

financial aid is that they encourage persistence. Women should continue to be admitted to these programs, and efforts should be made to place them in jobs traditionally reserved primarily for men. Work experiences in nontraditional areas will help women to develop new competencies and thus enlarge their options. In addition, women could be encouraged to work while in college, since such experiences will make them more independent, personally and financially. Financial independence may have additional benefits in that women will begin to view themselves as a critical part of the economy and as competent to become leaders in the future.

In graduate school, women should be encouraged to compete for research assistantships, since this experience offers the additional benefits of further learning, more interaction with mentors, and future employment opportunities. Furthermore, women should be encouraged to apply for fellowships, and professors should be encouraged to nominate women in greater numbers.

Institutional Practices and Policies

Colleges should continue to support women's studies, for the same reasons outlined earlier with respect to women's studies in high school. Moreover, since female role models are scarce in higher education in general - and in traditionally male fields in particular --special efforts are needed to give young women a chance to interact with role models, for instance, in workshops or seminars. Films on the lives and activities of successful women are a further example of possible programmatic efforts to provide role models for college women.

The lack of gynecological facilities and of day-care centers

have been viewed as forms of sex discrimination in that many women need such support if they are to continue their education without undue pressure. To provide convenient and inexpensive health care, gynecological facilities should be made available as an integral part of any educational institution's medical services; one of the benefits is psychological: The provision of such facilities increases the woman's sense of belonging in the institution. Moreover, as long as a woman is expected by society to bear primary responsibility for her children and to follow her husband to a new location when he makes a change, an effort should be made to provide for child care and to permit part-time study. It would also help in such situations if institutions develop new and simpler ways of translating and accepting credit from other institutions, so that women who must follow their husbands do not lose credit for previous postsecondary experience.

RESEARCH EFFORTS

Two substantive research needs emerge. The first is for periodic data collection from high school students in order to observe trends and changes in their plans and aspirations. Whereas data from the Cooperative Institutional Research Program assisted us in documenting changes in the plans and aspirations of college students, we found no comparable information on trends among high school students, and were forced to rely solely on Project TALENT's survey of high school seniors (an obviously dated source) and on the National Longitudinal Study, a 1972 survey of high school students. Thus, we recommend that a program of research to collect data from high school students periodically and to follow up some of the cohorts be designed and instituted.

The second research need is for studies to identify the factors that influence the career decisions of women. We need to identify the personal characteristics, background, and early experiences of women who chose and pursue different fields and careers. Equally, we need to learn what variables stimulate or inhibit career development. Some of these studies may be cross-sectional, looking at young women of different ages, racial/ethnic backgrounds, and socioeconomic statuses with respect to their plans, choices, and preparation or looking at women in different fields to identify their differentiating personal characteristics, early developmental experiences, and educational experiences. Other studies should be longitudinal, identifying the critical experiences in the lives of young women that result in differential aptitudes, interests, personal traits, and values--all presumably important determinants in career choice and development. For example, how do young children begin to form concepts about work and about themselves? What kinds of home environments and parent-child interactions develop autonomy, high self-esteem, and a sense of competence in a variety of areas? What educational experiences reinforce a sense of self-worth and competence? What role do a liberal arts program, a work-study experience, career guidance, or specialized mathematics curricula play in developing aptitudes and competencies essential to appropriate career choice and development?

These studies should be framed in the context of educational institutions. The underlying question must always be: What institutional practices affect women's full development and utilization?

From this study of sex discrimination in educational access, other more specific research needs emerge.

1. To what extent do the limited career aspirations of women lead them to enter less selective and less affluent institutions? As we have seen, women aspire less frequently than men to technical and scientific careers, and this may lead them to choose smaller, more convenient, and less expensive colleges over universities where technical facilities are available. A study designed to test whether women with different career aspirations select different types of institutions, independent of aptitudes or past achievements, would be useful in resolving this question.
2. The exploratory studies we undertook on admissions (described in the main report) suggest the need to explore further (a) the factors that influence women to apply to certain kinds of institutions and not others (this is an elaboration of the study described above), and (b) the rates of acceptance for women when aptitudes, high school preparation, and career interests are controlled.
3. Earlier, we recommend a number of curricular modifications and innovations. Such efforts should be accompanied by research to evaluate the changes that result from these curricular changes.

Finally, a word must be said about methods of data collection. Although surveys provide valuable information about some facets of educational and occupational development, they cannot assess more subtle and nonverbal areas. For example, teacher-student interaction, which may affect a woman's perception of herself, cannot be studied

through surveys; interviews and observations are required.

Surveys are often limited in the way they ask for information from some populations. For example, asking a Chicano student whether her parents encouraged her to pursue higher education may be inappropriate in that other family members such as an older brother may play a more important role than the parents. Thus, a simple 'yes' or 'no' answer could be misleading. Interviews with these students, however, can highlight these nuances.

LEGISLATIVE EFFORTS

The Title IX regulation implementing Education amendments of 1972 released at the same time as this study was undertaken, corresponds directly to the findings and recommendations that emerge from it. The regulations address the issues of admissions, programs, financial aid, and special services. For example, with respect to catalogs and other informational literature, Title IX requires that both the text and illustrations of such materials reflect nondiscriminatory policies. Title IX prohibits discrimination in counseling and in the use of appraisal and counseling materials. With respect to admissions, Title IX states that no test or other criterion of a discriminatory nature can be used unless it is shown to be a valid predictor. As regards financial aid, Title IX prohibits discrimination in amount, type, and eligibility. It further indicates that sex-specific monies must be matched equally with nonsex-specific money. The regulations require remedial action to overcome the effects of previous discrimination based on sex which has been found in federally assisted education programs or activities.

It also permits affirmative efforts to overcome the effects of conditions that have resulted in limited participation.

In short, Title IX addresses itself to the very issues and concerns outlined and discussed in our study. It is, however, limited to administrative enforcement by HEW and does not provide for private right of action. Thus, additional legislation is needed. The Regulation should be amended to provide for private right of action in order to ensure further that institutions comply, since the work required to monitor institutions could be prohibitive for a government agency. Moreover, as institutions are becoming sophisticated in "avoidance" tactics, this very important legislation may have little effect unless its implementation is better guaranteed.

If such an amendment is not introduced and passed, then some strong efforts should be made to assist State and local boards of education in implementing the guidelines by whatever means are appropriate at the state and local levels. Such means might include differential budgeting so that guidance efforts in the high schools will be increased. Or special monies might be made available for affirmative actions to overcome disparities in participation in educational programs and activities resulting from previous discrimination.

We would also recommend that another amendment to Title IX be introduced to cancel the current provision with respect to admissions policies exempting private coeducational institutions. If we are to encourage women to participate equally in educational experiences, exempting private institutions that may be in a position to offer valuable experiences for women while in high school or afterwards makes no sense.

FOOTNOTES

1. In this study, the term postsecondary education covers two- and four-year higher education institutions, proprietary schools, and other vocational and training institutions.

2. For the data presented in this report we depended heavily on statistical reports; thus, we were often unable to present sex differences for minority populations.

3. Although the two populations are not completely comparable, we chose to compare entering college freshmen with black high school seniors because the data were collected at about the same time. Data on entering black freshmen were somewhat dated (1968, 1971), and comparisons with 1974 entering freshmen would have been questionable.

4. First professional degrees include law, dentistry, medicine, theology, veterinary medicine, chiropody or podiatry, optometry, and osteopathy.

5. In this exploration we examined multiple applications made by a random sample of 200 students enrolled as freshmen in 1975 at 20 selective institutions.

6. This study was based on data gathered from freshmen in 1973 (CIRP). The data are collected from all entering freshmen in a representative sample of institutions.

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